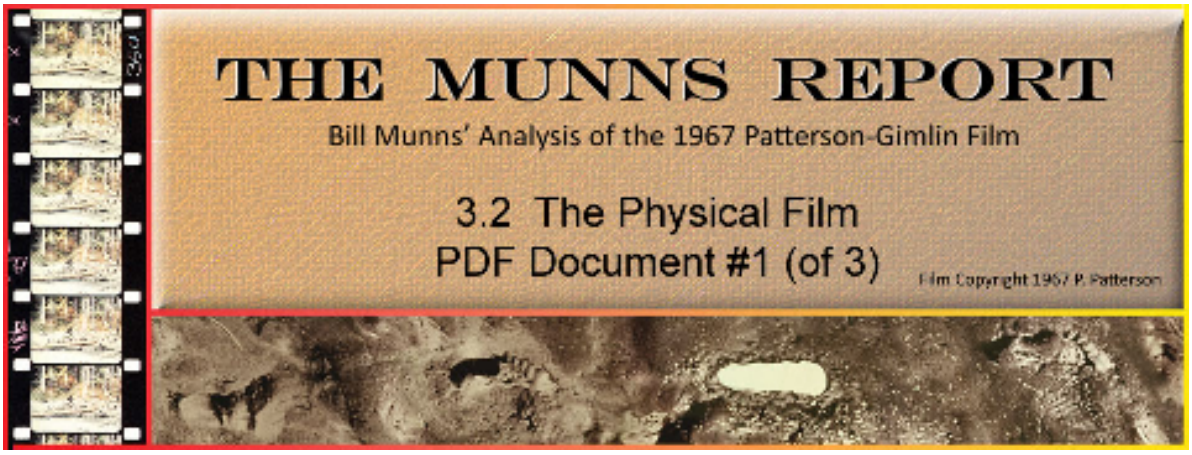


The Physical Film

This section is divided into three (3) PDF documents
PDF 3.2 #1 has sections 3.2.1, 3.2.2, and 3.2.3
PDF 3.2 #2 has section 3.2.4
PDF 3.2 #3 has section 3.2.5

3.2.1 - Introduction

Generally, people studying the Patterson-Gimlin Film (PGF) tend to focus their attention on the subject figure walking through it, but the physical film itself has a lot of valuable information that may help us make a final determination about the question of whether the filmed subject is a real biological entity as it appears, or a human in a fur costume.

So this aspect of the report and website is focusing on the physical film itself, and the specific topics and issues included in that general category of study. I will begin with a description and analysis of the PGF itself, as a physical film, and the significance of this information on the question of its authenticity. That will be followed by Reference Material (in the second and third PDF), which explains how the film is studied, especially how various copies and still images are made and used. The Reference material will also describe related film footage that factors into this discussion (PDF number 3 specifically).

In each topic, I have included a brief statement of relevance, so the potential importance of this topic can be appreciated from the start, as you read. The single bolded word "Relevance" will be followed by the statement about why this specific topic is of some significance to the film study.

Some of the material in this topic (particularly in the Reference Section 3.2.4) was originally presented in earlier Report Releases. So the inclusion of this data here is intended as part of the re-organization effort to consolidate the information under topics for easier access by future researchers. In some cases, the original material has been revised or expanded.

3.2.2 - The PGF, Described and Studied

Relevance - Any film invariably captures not only the image content we see in the frame, but some information about the camera itself, and if handheld, then information about the camera operator's actions during filming. In this regard, the film can actually tell us some facts about what Roger Patterson did while he was filming.

The Patterson-Gimlin Film (PGF), Described

The PGF is a 16mm film, consisting of 953 frames (23.8' of footage) from a 100' roll, and distinguished from the rest of the roll's content by referring to it as "The Bluff Creek Segment". For most people, this segment alone is the PGF, but other footage was on the roll, generally referred to as "First Reel Footage", and a second roll of footage was also reportedly taken the same day, which included images of the footprint trackway. These other rolls or segments are discussed in 3.2.5 - Related footage. This introductory discussion will focus on the 23.8' Bluff Creek Segment of Reel One, the footage which contained the mysterious fur-covered subject walking away from camera.

All current analysis is with copies of the film, and the current absence of the camera original does introduce some contentious discussions about the reliability of copies for analysis. This is discussed in greater detail below (here at 3.2.4.2 and 3.2.4.3, PDF #2), as well as 3.5 - The Backstory, section 3.5.5.1 and 3.5.5.4.

Filming was done with a Kodak K-100 single lens model 16mm camera, which takes a 100' daylight load roll of film. This has been verified by an odd shape on the side of film frames, a shape called a Camera Identification Notch. Apparently many 16mm cameras of the 1940's, 1950's and 1960's had distinctive holes or notches cut into the camera aperture plate on one side of the film image area, between the sprocket holes, so the exposure of light through this hole or notch would not show in the projection area, but could be seen by examining the actual film. Each camera make and model had it's own distinctive shape or pattern. By this system, an investigator could look at a processed film, and determine what kind of 16mm camera took that film. The K-100 ID mark is seen on both the PGF (on transparencies taken off the camera original) and other footage Roger took. This verifies the type of camera used.

Elements of the film we can study are where the camera starts and stops are, how the landscape changes position relative to the camera in different segments, and the proximity of the filmed subject to the camera, based on relative size (the larger the subject is in frame, the closer the camera to that subject). One basic point of analysis in the PGF is where camera starts are found in the film, because this will impact on our analysis of the camera position in the filming location, and the movement of the camera operator.

With a camera start, one scene abruptly changes to another scene, but abrupt change of image (by itself) can also be accomplished with editing, as an alternative potential process. Generally however, some evidence of editing can be found with careful examination of a contact print (which prints through both film frame and the frame division line where a cut and spliced

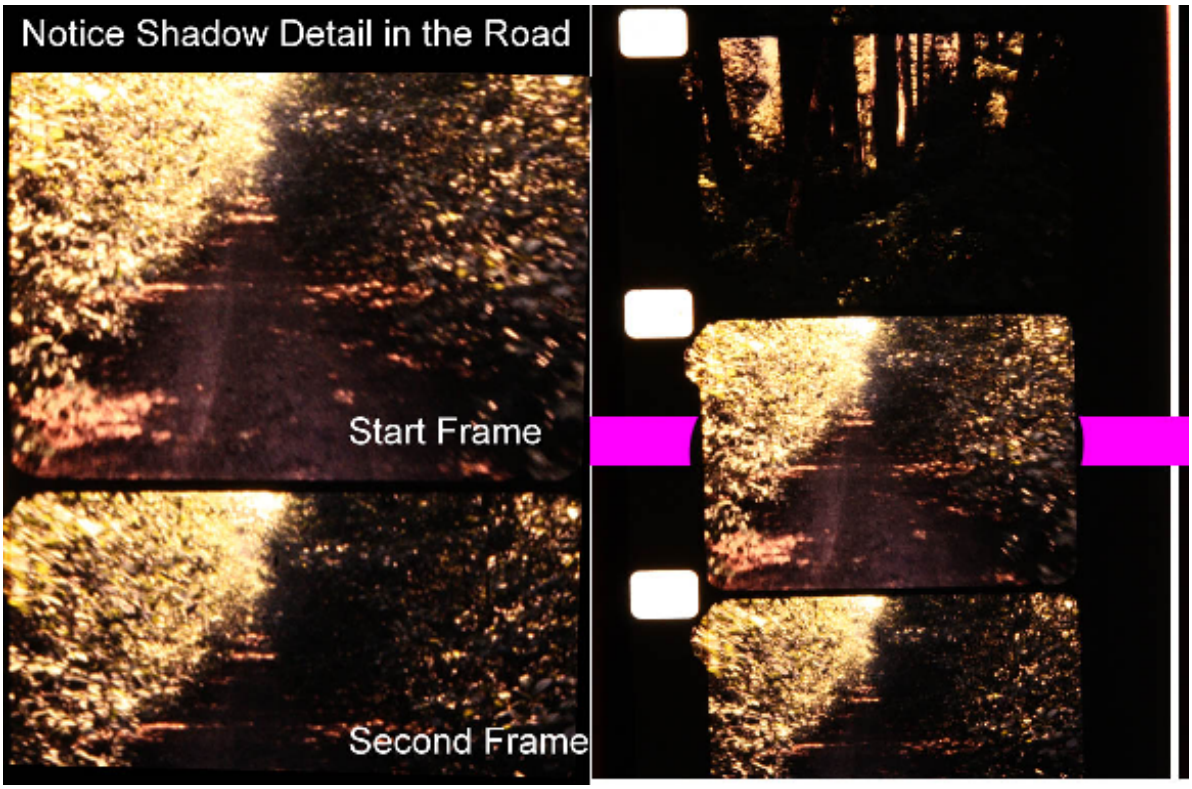
reassembly would occur). There has been some discussion of an "invisible splice" (see 3.5.5.1 in The Backstory, for more information about this).

However, for a camera start, there is a second evidentiary indicator, which is the slight over-exposure of the first frame of a camera start. No form of splicing can falsify this over-exposure.

Examples of a Camera Start

With the K-100 camera, being spring driven, the camera doesn't get up to full speed on the first frame, and so the slower shutter (still trying to get up to speed) allows more light into the film, and over-exposes the first frame image somewhat, compared to all the frames that follow. Using other footage Roger took with the K-100 camera, we can see how a camera start will cause the first frame to be lighter than the following frames of a segment.

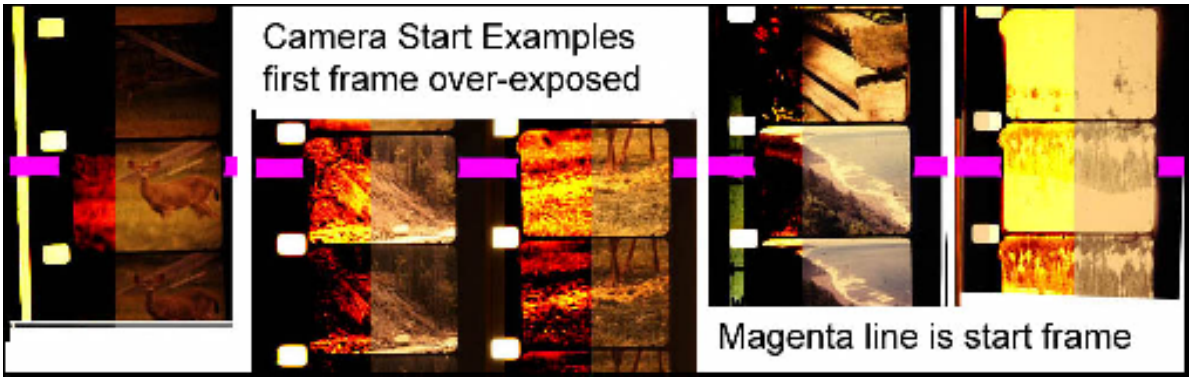
Example One - This example, from Roger's documentary footage before he filmed the PGF, shows a dirt road amid trees, with the camera apparently in a vehicle traveling down the road. The camera start frame has detail of the road itself, including some kind of tire wear impression, while the second frame with less exposure (faster shutter, now up to full speed) throws the road almost entirely into shadows. When copied, this film would build up contrast in shadow areas and the detail of the road would be lost to all frames but the first, where the road is lighter and detail has more mid-range tonality.



Example Two - This set of scans (below) shows many examples from Roger's documentary footage, all filmed with a K-100 camera, all showing some degree of lighter exposure in the camera start first frame. The magenta line at the sides is the first frame for each camera start in the scan. In every case, the frame below, frame #2 of that segment, is slightly darker, although the degree of darker exposure varies.

This could be affected by spring tension, how much force is applied to getting the shutter up to full speed, and shutter position, what part of it's solid section is covering the camera aperture.

On the chart below, showing various camera starts with a K-100 camera, the left portion of each frame has had the contrast greatly increased, while the right side of each frame shows the scanned normal image coloration. By increasing the contrast, some of the lighter first frame examples are more easy to distinguish.



The PGF Camera Starts

Evaluating this material, the discussion should be divided into factual circumstances, first, and then second, the implications or analysis of the circumstances as they compare with the two alternative prospects of this film (that it was a real and spontaneous encounter with a real and mysterious entity, or that it was a planned and deliberately performed hoax).

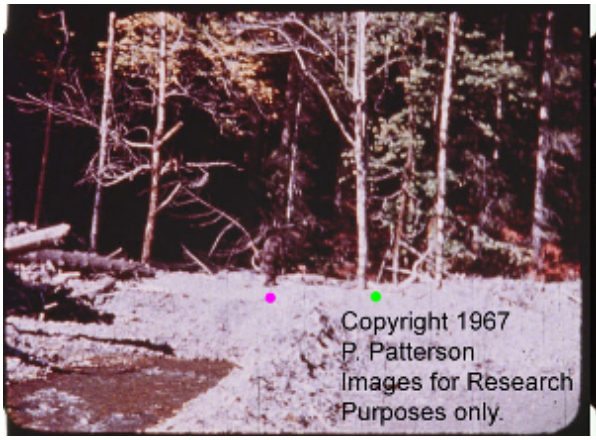
The Factual Circumstances

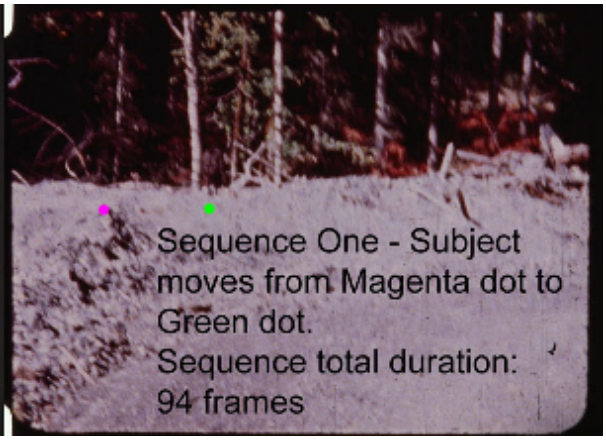
The PGF Bluff Creek Segment has 6 indications of a camera starts, meaning 6 filming segments, plus two possible single frame exposures. They will appear somewhat different from the examples above, because in the PGF, there is so much motion blur caused by Roger, holding the camera while walking or running toward the subject being filmed. Roger's other documentary footage was generally taken on a tripod or with Roger standing still. This shaking (in the PGF) causes motion blur which sometimes makes the over-exposed first frame less obvious, but it also gives us blur streaking lines that show changes of direction for the camera shaking, allowing us to determine what motions are continuous and which are disconnected by a camera stop and restart.

Running times for each segment are noted with two numbers, the first being the calculation at 16 fps, and the second calculated at 24 fps. This is because the actual camera speed (in fps/frames per second) is not verifiably known. The camera starts are located as follows (using the Verified Frame Count System):

Start #1 - (at frame VFC 001) has the camera pointed at subject, and somewhat but not perfectly stable (there is frequent motion blur during this segment). The detail in shadow areas of the start frame (as compared to a clear image 3 frames later) is the primary indicator of a camera start. The camera is moving position constantly, advancing toward subject, but not directly, in a straight line, instead angling to the right as well. There is a creekbed with flowing water described at the scene, (and shown in Camera Start #3, bottom of frame) but unseen in this sequence.

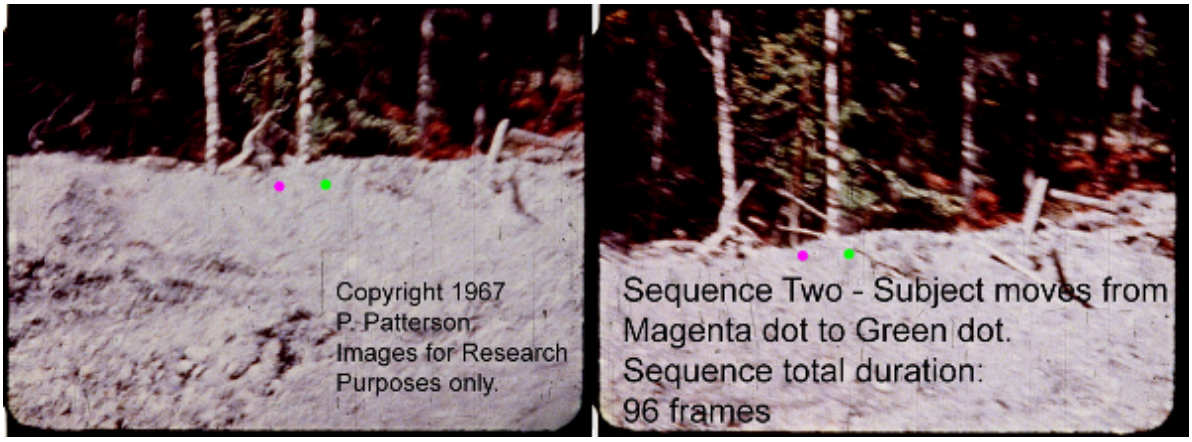
94 frames - 5.87 sec/3.91 sec.





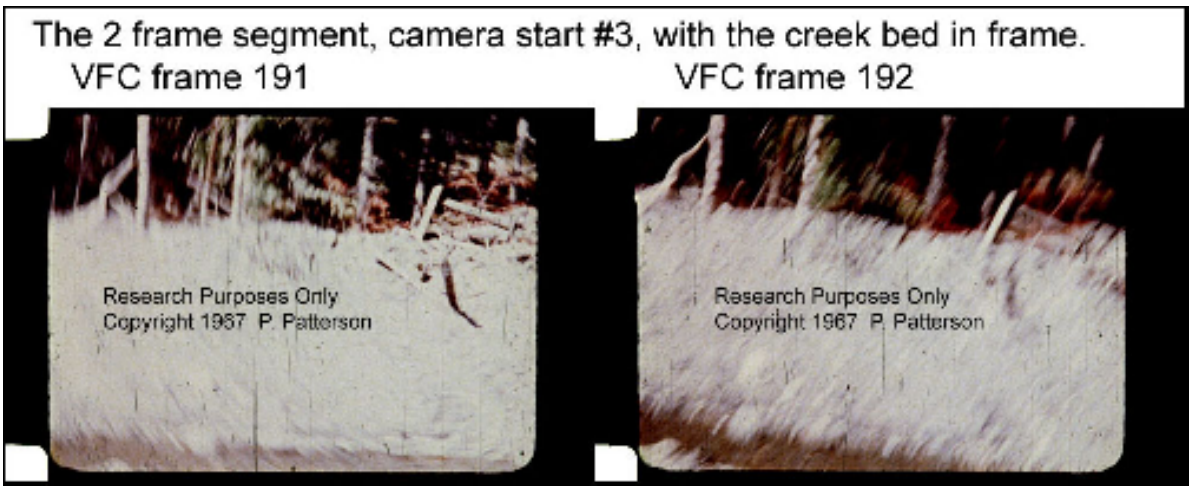
Start #2 - (at frame VFC 095) is a position closer to subject by a factor which could not occur in continuous filming. Objects are substantially larger, indicating camera is closer to them, and that substantial change of object size is abrupt. Position of the two whitish trees (against dark foliage shadows) shifts abruptly to the left of frame, even though the blur is on a diagonal toward to next frame, and there is no blur immediately prior. Indeed, the prior frame is remarkably sharp, indicating no camera movement. So a startup as camera moves slightly is indicated.

96 frames - 6 sec/4 sec.



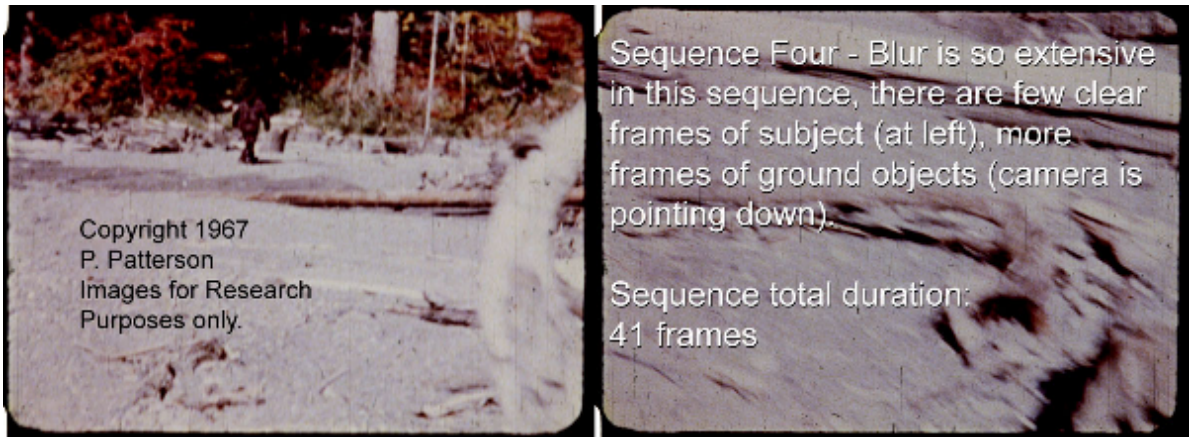
Start #3 - (at frame VFC 191) is the most curious, because it is a two frame segment. The start frame, #191, is indicated to be a camera start by the same indicator as start #1, greater background shadow detail (from over-exposure caused by shutter not yet at full speed) than in the next frame 192. Short white stump and "S" branch are suddenly very wide compared to background trees, suggesting camera is significantly forward of the position seen in the last frames of segment #2. Also these two frames show something like a creek, suggesting Roger is about to or starting to cross the creek.

2 frames - 0.125 sec/0.083 sec.



Start #4 - (at frame VFC 193) camera start by "S" branch

41 frames - 2.56 sec./1.7 sec.



Above left is one of the few clear frames of this segment. Above right is an example of the camera pointed down at objects on the ground.

Questionable - 232 and 233 may have single frame camera starts, because blur direction changes from vertical to angular so abruptly. May be single frame function indicating Roger is bumping the switch accidentally.

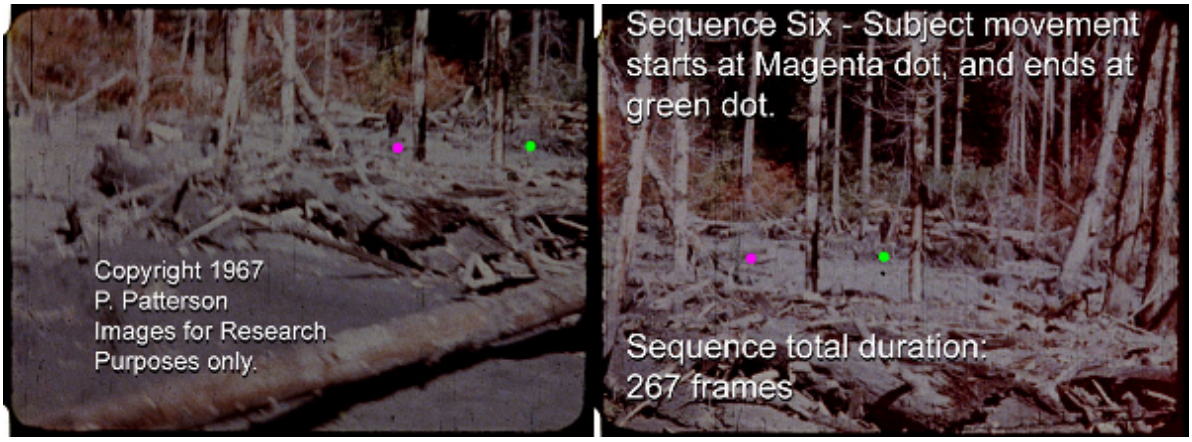
Start #5 - (at frame VFC 234) is the camera start, for the lookback sequence.

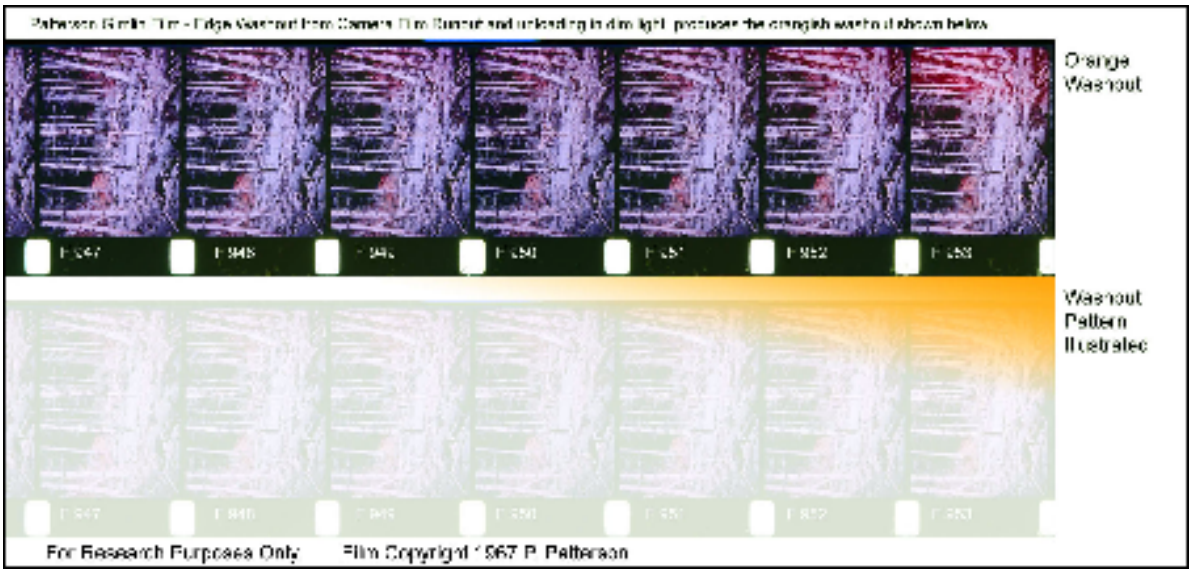
453 frames - 28.31 sec/18.87 sec.

The last part of Segment Five is looking through some trees, far right, above, and then illustrated below (left, full frame, right, magnified on the filmed subject)

Start #6 - (at frame VFC 687) This camera start goes to the end, frame #953, where the unloading of the roll causes some edge washout (shown below).

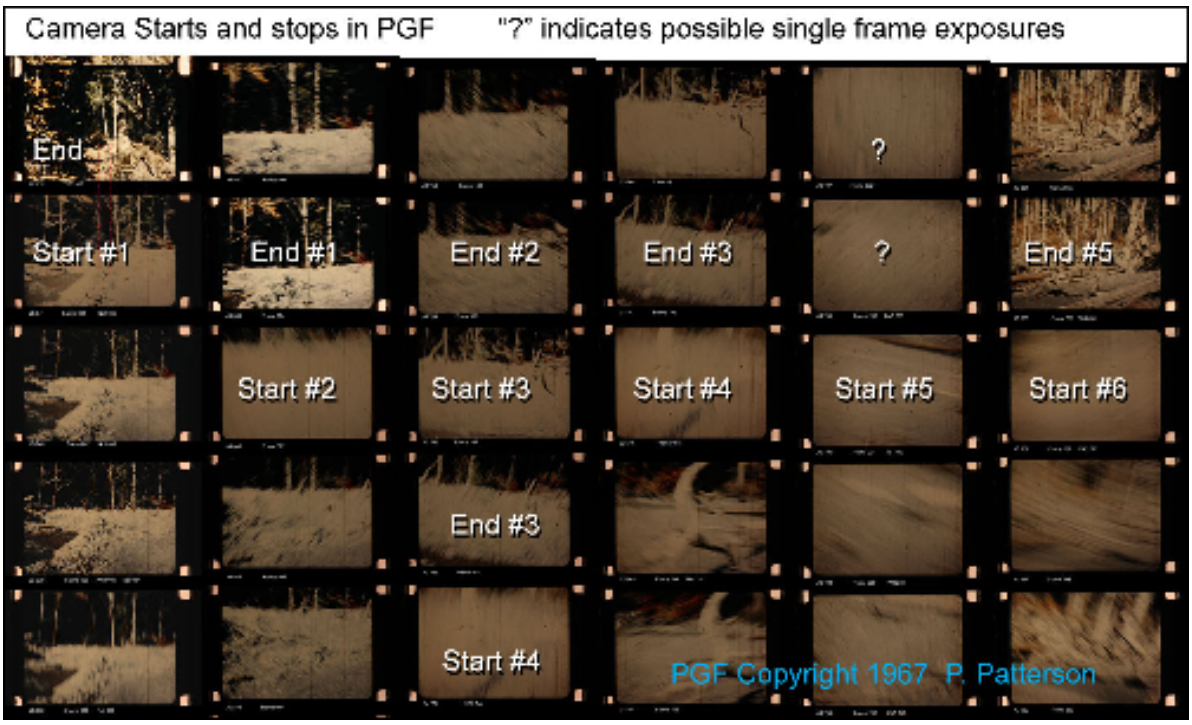
267 frames - 16.68 sec./11.12 sec.





This end roll washout effect is described in greater detail in section 3.2.4.6 in the Reference Section.

The camera start frames from the inventory are shown below:



The way some of these camera starts occur, and because of some odd frames suggesting a single frame exposure, it will help to explain a bit about the camera's operation and filming options.

The Kodak K-100 camera is a spring driven camera (not motor driven), and the operator must wind the spring for the camera to run. To film, the camera has an operational lever to run the camera, and this lever has several settings.

If pushed upward from it's stop position, the camera will take a single frame of film, and even if you hold the lever up longer, it will not take another frame until you first return the lever to the stop position. If pushed downward, the lever has two modes. The first step down is a mode wherein the camera will run as long as the operator's finger continues to hold the lever there, but if released by the operator, the lever will spring up to stop position. The second step down for the lever locks the camera running, so if the operator takes the hand away, the camera will continue to run, until the hand deliberately pushes the lever back upward to stop position.

So there are a total of four lever positions, listed from top to bottom:
top - Single frame
level - stop
down one - Camera runs as long as lever held here
down two - camera runs on it's own, until stopped or spring tension is too low.

The camera is described in greater detail in the Reference Section 3.2.4.5, PDF #2.

Roger was reportedly using a pistol grip, which would be held with the left hand, and the trigger lever to operate the camera is worked by the right hand. Given the camera is a rather heavy one, relative to magazine 16mm cameras, holding this heavy weight on a pistol grip can be awkward, and so keeping the right hand on the camera in the trigger position even when walking about preparing to film is a comfortable posture for a camera operator. So to envision that during the duration of the filming, Roger held the camera in both hands, with the right on the trigger, is a reasonable expectation.

Given he was moving on irregular ground, this posture would further help, by bracing the camera with right hand.

Implications of the Evidence

For the Segment #3, consisting of only two frames, we must first consider the the options to explain it.

Option 1. The segment is edited.

Option 2. The segment is an actual two frame filming segment, with several explanations as follows:

Option 2A - The actual filming was accidental, the finger on the trigger accidentally pulling down and slipping off.

Option 2B - The actual filming was intentional to start, but the finger accidentally slipped off the trigger lever to end.

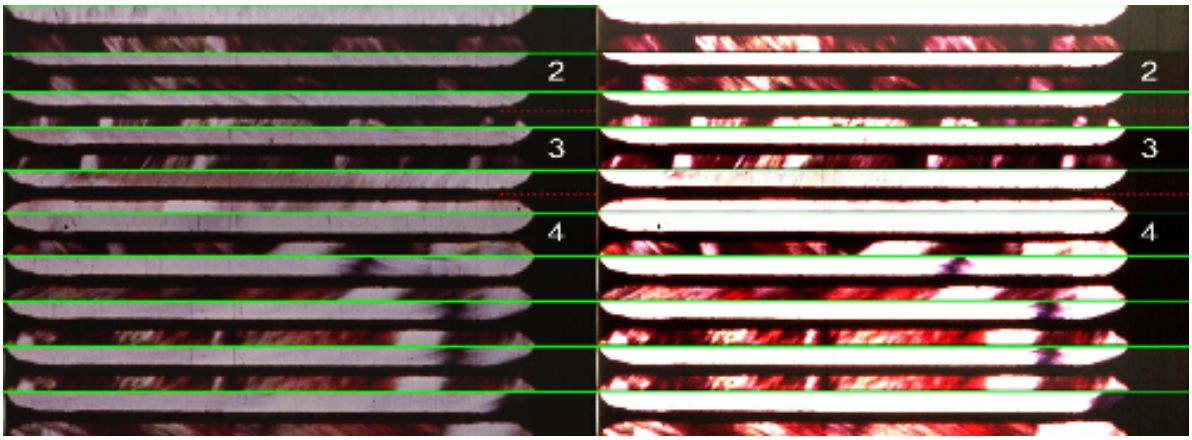
Option 2C - The actual filming was an intentional act, to pull down the trigger lever and immediately release it, to achieve a two frame segment to look spontaneous.

We begin this deductive process of elimination with item #1 above, editing and splicing. Nothing in the frames themselves, or the frames immediately before or after, has any indication of a splice, by common processes. We must also consider a process rarely used but intended to hide the usual indications of the common splicing methods. This method is described in detail and illustrated in section 3.5.5.1. Using this method, even if the splice tape edge is hidden, one still must make a physical cut of the film in the line between frames, and that cut should leave some irregularity on close inspection.

On close examination of frame dividing lines on a contact print of the PGF (as seen below), there is no evidence of any irregularity which could justify any conclusion of the two frame segment being achieved by splicing. In the chart below, Left are the scans of frame lines (where the film would normally be cut to make a splice), and at Right, a high contrast version intensifies the

black frame lines for comparison. All the frame lines shown (both where we would need to see splice evidence, and where we would not) seem to have a solid and consistent integrity.

Segments are numbered, segment 3 being the two frame segment.



There is also the argumentative question of why anyone would go to the extra effort of striving to make two splices invisible to simply include two frames of film which show nothing of the subject "creature". One splice, joining segment 2 and segment 4 (and just not using the two frames of segment 3 at all), would be easier than two splices to join segment 2 to segment 3 to segment 4, when the two frame segment 3 is seemingly worthless to any falsified film compilation. So there would be no apparent motive to make such a splicing, aside from no apparent indications or evidence of such.

So Option #1, editing and splicing, is eliminated by both a lack of evidence and lack of justification. The first frame camera start (verified by over-exposure) further negates the splicing option, because it explains the abrupt change of picture satisfactorily, placing more burden on proof to establish a splice.

Lacking any evidence of splicing, the two frame segment is indicated to occurred "in camera" (caused by camera operation, not film editing after filming). The action occurs "in camera" when the finger pulling down the trigger lever slips off the lever as soon as the drive mechanism engages and starts the shutter, and the brake mechanism acts as soon as the lever is released (Option #2). This could be an accidental pull down of the trigger lever, if the finger was held in place and the hand clinched to secure the camera while the operator walked on an unsteady footing (2A), or the operator deliberately started the camera, but the finger slipped off the lever accidentally (2B), or the operator deliberately started the camera and deliberately let the finger slip off (2C).

However, for the second option (2B - a deliberate intention to film, and an accidental slip of the finger off the lever), the operator would generally reset the finger more securely on the lever and restart the camera, if the intention was to film. But here, Start #4 does not occur until the operator has moved over the creek and far forward toward the "S" branch. In this case, the operator did not restart immediately to keep filming the subject in segment 3. That would indicate the segment 3 was not an intentional filming start, with an accidental stop.

Eliminating option #2B (intentional start, accidental end), two possible interpretations remain (2A and 2C):

2A. Accidental start and stop, which gives support for a spontaneous filming of something real and unpredictable.

2C. Deliberate start and stop, suggesting deliberate camera filming oddities to confound future researchers, as part of a hoax.
Problems with this interpretation are:

1. During normal projection, the 2 frame segment would be subliminal, and thus undetectable (2 frames is 1/8th or 1/12th of a second, depending on projection speed. Either case is to fast for analysis).
2. Single frame projection (freeze-frame mode on a projector) wouldn't allow for analysis comparing multiple frames side by side, to detect result.
3. No multiple frame side by side projection could be done unless you had two copies of the film and two projectors, side by side, projecting to separate screens, a situation not commonly available.
4. Only paper print of frames might allow convenient side by side comparisons, but paper prints of each frame would still not allow for overlay comparisons.
5. Common darkrooms are not set up for prints from a continuous 16mm film, more equipped for cut film segments. Commercial darkroom facilities may do paper prints, but fees would be substantial. In 42 years, no one has been known to do paper prints of every film frame for study.
6. The technology of today, digital imaging and computer graphics, did not exist then, and could not even have been envisioned to be invented in the future.

These above problems leaves us with no reasonable way a researcher could detect the anomaly at the time, so there would be no deliberate reason to fake a 2 frame film segment (which might lend credibility to a spontaneous filming) when that segment could not be analyzed by any research method of the time, in any common analytical process. In other words, why fake something on the film no one can reasonably detect, at the time? Considering that the film has been analyzed for 42 years by many researchers (both people advocating the film to be real, and researchers advocating the film to be a hoax), and this segment was not identified as what it truly is until now, is a reasonable indication of how hard it was to detect, and thus, how unlikely that it was planned as part of a staged hoax event.

This discounts option 2C, leaving Option 2A alone. But this option must still be validated by factual criteria. 2A is satisfied by:

A. The camera start mechanism is conducive to such an action.
B. There is no indication of editing or splicing.
C. The first frame of the segment has indications of a camera start (over-exposure).
D. The circumstances, crossing a creekbed, provide a situation where the operator, while walking across the creek, may make sudden body movements to maintain balance while walking on the

stone-covered creek bottom, and adjusting his balance for any water flow he may be standing in or walking through.
E. The operator did not immediately restart the camera to continue filming. He moved a very substantial distance to the next filming position.
F. A deliberate two frame segment to look like an accidental one would be pointless at the time, because analysis methods would not have been able to detect it (then, or anticipated in the future), and making a deliberate action to produce a false clue nobody could find is illogical.

So all the elements for an accidental two frame start-stop (2A) are satisfied, while all other options are discounted.

Conclusion - Camera Start #3, causing a 2 frame segment of film, with the camera pointed forward but not showing the subject of obvious concern (the "creature"), is more likely or reasonably an accidental camera start, the operator holding the camera with finger on the trigger lever, and a slip of the right hand or clinching of the fingers pulled down the lever momentarily, before the finger slipped off the lever.

This would be the behavior of a person holding the camera ever ready to spontaneously film the moment the subject of interest was visible, while trying to walk near or across a creekbed with flowing water, an unstable terrain to walk upon.

Further supportive of this conclusion is the analogy of comparing a camera to a firearm, and how the operator of the device may behave in a situation with calm intentional activity, as compared to a situation of spontaneous and unpredictable activity.

In a situation of calm and predictable activity, a firearm is generally held with finger off the trigger, the firearm pointing up or down, but never forward, the safety on (if the firearm has one), thus holding the device in a deliberate manner to avoid an accidental triggering of the device.

In a situation of spontaneous and unpredictable activity where a target has already been sighted, but is currently out of sight, the firearm is held with its safety off, the firearm pointed forward, the finger on the trigger. Here, the operator of the firearm, like the camera operator, is holding the device ready to use at a moment's notice in a spontaneous and unpredictable situation, should the target suddenly re-appear.

An accidental triggering is likely to occur in the spontaneous instance, and not the deliberate activity instance. The spontaneity factor is a strong argument for a real incident, an unstaged, uncontrolled, unpredictable encounter, and argues against a filming activity which would be done with calm deliberation and preparation (as a hoaxed filming would be done).

Frames 232 and 233 may be single frame exposures, created by accidental action where the camera operator pushes the trigger lever up, while holding the camera with right hand bracing the camera in the trigger operation position, finger on the lever. The sudden shift of blur direction is the factor raising this question. However, nothing in Roger's filming archives of other documentary footage shows camera motion blurs as extensive and varied as we see in the PGF, and no filming tests have yet been done to specifically study motion blur caused by shaking the

hands or body during hand held filming, so we cannot yet make a conclusive determination about these two frames.

But if (and please note, this is a speculative consideration at present) these two frames are determined to be single frame exposures, when further tests and analysis are done, then they will indicate a spontaneous and probable accidental move of the finger on the trigger lever, not a splice or a deliberate filming action, by the same reasoning applied to the two frame segment.

And if so, this would further strengthen the conclusion the filming was spontaneous, not staged.

Comparing Film Data with Patterson & Gimlin Interviews

Relevance - We have remarks by the two participants at the scene, Roger Patterson and Bob Gimlin, as to what occurred when the film was made. There are physical facts about what the camera is doing, determined by factual analysis of the film, which can be compared to the mens' descriptions. Any discrepancies of the descriptions and the fact of the film would give cause to question the validity of the events as testified by the two men.

Comparing remarks of Roger Patterson and Bob Gimlin from a radio interview in 1967 transcribed by Bobbie Short and located on her website:

http://www.bigfootencounters.com/interviews/radiopatterson.htm

The interview as posted on Bobbie's website did not allow me to copy/paste text from it, so Bobbie kindly did a text transcription of it, and I am working from that text transcription she provided, in the word document where I have taken excerpts. Transcript portions are BOLD. Initials referencing the person talking are "W" - the interviewer, "R" for Roger Patterson, "B" for Bob Gimlin.

W: Now Roger, what took you to that place, and precisely where was it, and why did you go there?

Roger: Well first of all, the reason that we were in this place was that I'd been filming a documentary on this thing for the past eight months or so and I'd been going to areas interviewing people that have seen these creatures, other than myself now, and we went to this particular area because a month before this they had found three different sets of tracks up in that area.

" I'd been filming a documentary on this thing for the past eight months or so. . . "

1. Eight months ago would have been late winter, based on interview date, and Roger has one full 100' reel of documentary footage of heavy winter snow scenery. It is Segment 5 described in the third PDF, Section 3.2.5 Related Footage/Roger's documentary footage

"I'd been going to areas interviewing people that have seen these creatures, . . "

2. Segment 3 of the same documentary footage reel shows Fred Beck, a man who had a described experience and who is also in Roger's book. So Roger is filming at least one such person, as described.

W: Now come back to yourself, first of all you showed some routine film of your packhorses, didn't you?

3. Packhorse footage is well documented, including the packhorse scene panning to tentpole trees, before the Bluff Creek segment starts.

.

R: We were just taking some shots of the scenery and of myself and Bob and . . .

4. Packhorse footage shows Roger in some scenes, Bob in others

R: That's when I seen this.... this creature, about 120 feet away, and she was, at that point, had just turned around and was just going up the bank, this small bank over there and I started running and trying to get a shot of her and I yelled at Bob to cover me.

5. The 120 foot distance will be referenced below, when compared to another distance estimate, #9 below.

6. **"I started running and trying to get a shot of her . . . "** The film shows the camera position is in motion from the start. Comparing frame 003 to 006, there is a shift of foreground in relation to a stabilized background, indicating a change of camera position. 32 frames later, (a time passage of 2 seconds if filming frame rate is 16 fps) shows substantial shift of foreground in proportion to a stabilized background, indicating a further substantial change of camera position, specifically moving to the right and closer to all objects. So camera operator is moving while filming from the first frame.

7. Frame 001 has indications of a camera start, so this first known segment of the Bluff Creek footage did start at known frame 001. No evidence of a prior Bluff Creek segment (that might have preceded this) is known to exist.

W: Right, so finally, I'm back to Roger Patterson again,. when you got your camera steadied did you stand still and take the pictures I saw, or did you follow it on foot?

R: I followed it on foot, because this was the only way that I had, I, I viewed the situation of course at the time and I could see her moving away from me and I knew Bob was there, and I thought if I'm ever going to get any pictures I'll have to do it now and I ran, as best I could, and trotted .

Note #6 above verifies camera was moving forward toward subject throughout filming this segment.

W: How close did you come, at the closest?

R: Well, I think we were closer when we first seen it than at any other time, don't you, Bob?

B: No, I disagree with you there, I believe just immediately after we got across the creek we were probably closer to her at that time than we were when we first sighted her, because she had her back to us at that time and or at least I was closer, because I ran a little further up on the horse, I was moving pretty fast and I got him finally across the creek, so I believe at that time when I crossed the creek I was the closest I ever was to her and I believe it was about ninety feet at that time.

NOTE: Several points are taken from the above Q&A

8. When were they closest to the subject? Roger thinks the first sighting but Bob states his perception that is is after they cross the creek and move up to get closer to the subject.

Two frames indicating a creek are VFC 191 and 192. They have a creek-like dark segment of the ground at bottom of frame, which means in front of camera. So Roger may not have crossed the creek yet at this frame point in time. There is a new camera start at VFC 193, once Roger has crossed the creek and moved up the embankment to be near the "S" shaped branch we see clearly in foreground from VFC 194 on, and the main log of the look-back in distant right Background. Subject can be scaled with some degree of reliability in VFC 207 and VFC 211 and is substantially larger than in the first sequence.

The largest the subject is ever in frame (meaning the point the camera is closest to the subject, in the entire film), and the image is sharp enough to make any kind of reliable estimation of subject size in frame, is VFC 266. This is the beginning of the look-back sequence position, about 10-15' closer than the 207 and 211 position. There is a camera start at VFC 234 so between 193 and 234, there was only between 2 and 3 seconds of filming before Roger moved up to the look back position (time dependent on frame rate, which is still not finalized, hence the 2-3 sec. range).

So the VFC 266 position is the closest clear image, but subject is actually seen in VFC 239 and 240 vaguely, and would be slightly larger in frame, if blur did not prevent a measurement.

So Bob's remark **"so I believe at that time when I crossed the creek I was the closest I ever was to her"** would be correct if Bob is by Roger's side. For the record, the film can only certify

where the camera is, and thus where the person holding the camera is. It cannot certify where a person not holding the camera is.

9. An interesting comparison is the size of the subject in the beginning (frame VFC 003 and 006 are clear) as compared to when the subject is largest in a clear frame, VFC 266.

A comparison of the two shows 3:4 ratio of subject size and distance (as distance increases, size on film decreases by inverse proportion). In a test, the subject size in VFC 266 was set as an image plane at a distance 90 units from camera, and a duplicate of same was moved to 120 units from camera, and compared to the size of subject in frame 003 and 006. The size is substantially similar.

So if the subject were about 120 feet from camera in the beginning, like frame 006, the subject would be about 90 feet away in frame 266, based on increase in image size. This is an approximation, because the subject postures are slightly different (006 the subject being more slumped over, lowering the head more). But it is interesting that it does indicate a fair approximation of the 120 feet estimate compared to the 90 feet estimate. The starting camera distance to subject was some distance by a factor of four (such as 4 x 30' equaling 120' as one possibility) and the largest the subject is seen is a camera to subject distance with a factor of 3 (3 x 30' equaling 90', if we apply the same multiplier, 30' to the ratio factor of each).

So it is not the actual distances (which are "eyeball" estimates, acknowledged) but the proportion of one to the other which is quite accurate, as substantiated by the film. And the largest (and thus closest) the subject is, occurs right after the frames showing a creek bed shoreline, so this closest position is after crossing the creek, as described.

W: Now, how far did you follow her?

R: I really didn't follow her any much further than when my camera run out of film and I knew that it was out, and Bob got on his horse and went after her then, and from that point he seen her more than I did, I never seen her again .

10. **"when my camera run out of film"** is validated by the camera edge light flashing shown on the last few frames (about VFC 947 to 953) indicating after this, the camera was opened to remove the reel and load another. The edge flare is the typical indication of a camera runout while filing.

This end roll washout effect is described in greater detail in section 3.2.4.6 in the Reference Section.

W: These are the tracks we saw in the movie tonight.

R: That's right.

11. Trackway footage, generally attributed to second reel footage, is known to exist.

The above interview/film data comparison was posted on the internet for discussion, and some interesting questions followed, which I have included here. The bolding is the question posted to me, followed by my reply (slightly re-phrased to compact the remark). Comments and followup discussion:

"Bill what do you make of the seeming discrepancy between Roger and Bob as to their differing views on the point in which they were closest to the creature? In some ways, it tends to lend more credibility for me. It seems less rehearsed I suppose. "

My thought would be that when Roger is looking through the camera viewfinder, as he's filming or pointing the camera to film, he's got a less accurate distance perspective than Bob does, Bob being truly an observer.

So the first distance estimate, by both men, was actual viewing the subject, before Roger started looking through the camera viewfinder. And there was no disagreement of Bob to that first estimate. But once Roger started filming, I'd think his perceptions of distance may have been skewed by the viewfinder perspective. Also, when you look through the viewfinder, you generally close the eye not viewing, and with one eye, you lose some depth perception. Bob's normal binocular vision (both eyes) tends to provide better distance estimates.

So given those circumstances, one man looking through a camera viewfinder, the other looking directly at the subject, I think may be a reasonable circumstance to produce a discrepancy of size or distance estimate.

"I guess that's what stood out to me Bill. I'm not sure I've ever seen someone take an interview with Roger and Bob and cross compare their words with the film in such detail. It is an interesting area to pursue. "

I think it would be reasonable to say Roger's remarks taken on their own, don't have a lot of credibility, because of his history that other researchers have pointed out. So I like to see if really impartial data gives us any clues to what may be correct or incorrect. The film itself is among the more impartial data sources, once we understand the mechanicals of film, cameras, lenses, and editing.

Summary of the Interviews and Film Data Compared

Conclusion: The film data generally supports the remarks of the two men, in the instances cited above. The distance estimation discrepancy is reasonably considered. Nothing else in the actual film data contradicts the description offered by the two men as to what occurred. In that regard, the film data tends to corroborate the men's description, and does not refute or disprove the description in any way.

3.2.3 - Frame Inventory, Artifacts and Splice Analysis

Although copies of the film have been in the hands of researchers for over 40 years, an actual comprehensive inventory of actual frame images apparently had never been done before. Reports of the work of Bruce Bonney do describe an examination of all individual frames, but the report by Bonney is unavailable for our review. So as far as I have been able to determine, the frame inventory I have developed is the first (if I am in error on this statement, I welcome anyone correcting me with information about other complete inventories done previously).

The value of an inventory, especially one that includes multiple copies of the film, is that it allows for comparisons of the same frame across multiple copies, which is necessary to make determinations about film image anomalies (odd shapes, marks, and light patterns which were not on the original, but introduced in the copy process) and also necessary to address the issue of splicing. In the absence of the camera original to inspect, claims or questions of the original being spliced can best be handled by looking at multiple copies of the film, the same specific frame (where the inventory helps immensely to identify the frames), if we find a splice on one copy version but not on others, we can reasonably deduce that the original camera master was not spliced on that frame in question, and the splicing seen on one copy (but not another) occurred on a copy, not the original.

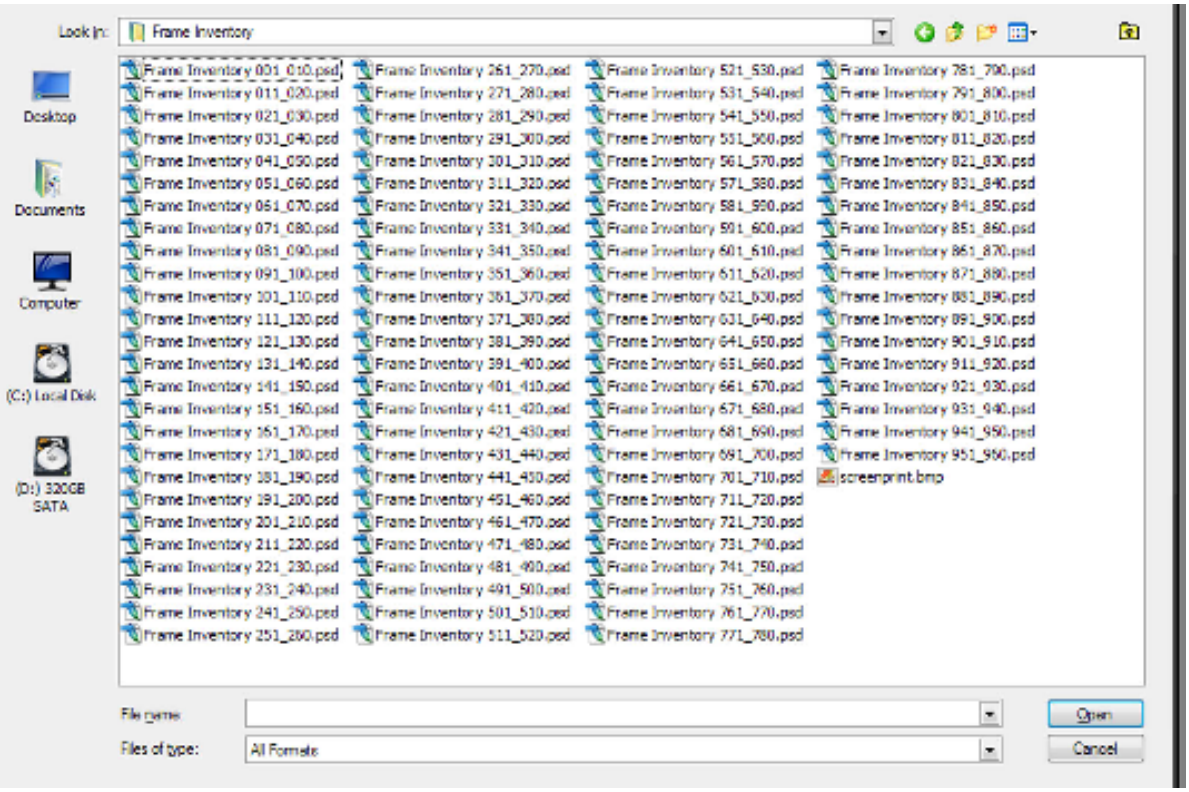
So the frame inventory is the database for this analysis, and becomes the necessary tool to make determinations about image artifacts and splicing.

Origin of the Current Frame Inventory System

When I set out to scan a copy of the film, my original intention was simply to acquire true full frames for a possible Photogrammetry analysis, and nothing more. But the first copy I scanned, in February, 2009, from John Green's archives, was not quite full frame, being an optically printed copy (which crops a bit of the sides and bottom of the true full frame, as noted above. This is explained in the Reference Section, 3.2.4.1 below). And having assembled the portable scanning system to do that scan, I had it available for subsequent use. That put me on a path of being able to go to people who held other copies and do scans of those copies as well. The result was my being able to accumulate a library of scanned copies and frames that may be unique in the research community.

With this data, I decided to put together a frame by frame inventory reference, to simply enable me to better identify individual frames for study. And in doing so, I came to realize the current traditional frame count system is incorrect. So while this goal of a full frame inventory was not my original intention, once I appreciated there is a problem, and realized I has the resources to offer a solution, it became one of my research goals, to establish a reliable and systematic frame number verification system.

The Inventory system has frames in groups of 10 each in a Photoshop file 750w x 5000H, with each frame reduced to 750x500 as an inventory thumbnail version of the high resolution scans. This frame inventory folder has 1.98GB of data. There are 96 such files as shown below:



It might be noted that the last inventory file shown above (called "Frame inventory 951_960. psd") has only three (3) frames in it (frames 951, 952, and 953).

This system also cross-references the scanning numbers of frames from various scans to make it easy to reference a specific frame from the various scan inventories (which are numbered automatically by the scanning process, and not necessarily in correct frame numbers, because I start a scan of leader markings before scanning the actual film frames, and that skews the numbering of the scan system). So for continuity, I leave all original scan numbers intact, and use the inventory list to bridge the scanning number variations.

Verified Frame Count

Having found an error in the traditional frame count system, I realized a new frame count system was necessary, and to distinguish the old traditional one with the new and more correct one, I have selected the term "Verified Frame Count" and VFC as the abbreviation, for this new system. I will continue to refer to the older system as the "Traditional Frame Count"

I have currently verified that there are 953 frames in the film known and documented, as traditionally reported, but curiously, none of the film copies I have inspected so far have a complete set. In the A&E Documentary series "Ancient Mysteries - Bigfoot", the narration claims there are 952 frames, and for quite awhile, I could only verify that number. It wasn't until I scanned some beginning and end frames from another copy privately held (in November, 2009) that I found frame 953 itself, and added it to the inventory.

But more curious is that the traditional frame count reportedly comes from the effort by Bruce Bonney and Rene Dahinden to make the Cibachrome copies, and Mr. Bonney's often described report on analyzing every frame of the film. But the traditional frame count was made from a version of the film which apparently started at frame #003 instead of #001, to get the number F352 for the famous "Look Back" frame, because it is actually F354 in the Verified Frame Count. I have not yet seen Bonney's report so I do not know what exact frame count he reports within it. I look forward to the prospect of one day seeing his report to hopefully clear up this discrepancy.

These discrepancies do not have any real weight or merit in debating the issues of whether the Patterson Filmed Subject (PFS) is real or a hoax. Rather, these discrepancies simply add to the confusion about the film itself, it's handling and copying, and fuel suspicions of "red flags" for people who are eager to find any discrepancy to hang the hoax claims on.

Examples of copy version frame counts (numbers below are VFC)

Copy 1:	starts at 001,	ends at 939
Copy 2 :	starts at 003,	ends at 952
Copy 3:	starts at 003	ends at 951
Copy 4 :	starts at 003,	ends at 953
Copy 5:	consecutive frames from 355 to 364	
Copy 6	starts 001	ends 949
Copy 7:	starts 003	ends 895

FRAME VERIFICATION SERVICE - as an assistance to other researchers, if anyone has a frame image and wants to know what number it is, they can e-mail me a copy of that frame, and I will identify it for them. I can also look for any image anomalies or other curious things, like evidence of splicing, if they have a sample of something suspicious, because I can first verify the actual frame number, and then compare several scanned copies of the same frame to see if the curious anomaly is on all frame versions (a good indication something was on the camera original) or on some copies only (a more or less definitive proof that the curious anomaly is a copy artifact and not on the camera original).

For anyone interested in doing so, an e-mail inquiry first may be appropriate, unless I have had prior correspondence with you.

My e-mail is: wmunns@gte.net If for any reason that one should be changed, I use the following as a backup: 2billmunns@gmail.com

As long as the first one is operative (I've had it for 10 years now, and hope to keep it), I don't check the second on a daily basis.

Study of Image Anomalies and Splices

Relevance - Like any photographic copying process, the copying of the PGF has resulted in two issues frequently discussed or debated about this film. One is the question of whether the image data seen in copies is in the camera original, and the second question is if splices found in copies are in the original. The key to resolving these questions is in the Frame Inventory Database.

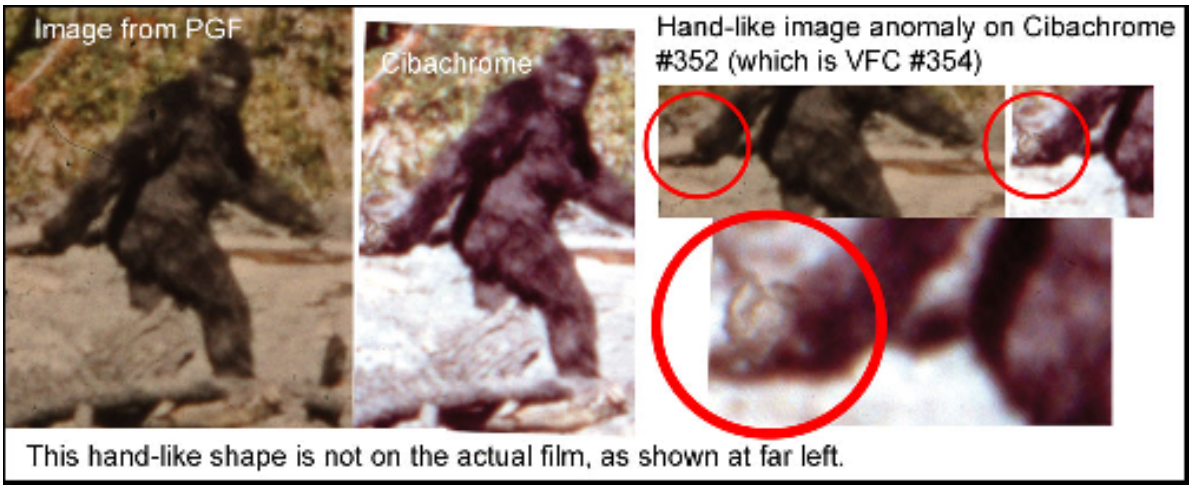
As we examine film copies and single frame prints, scans and such, we occasionally find odd things in the images which we think may have some evidentiary value. But before we can base any analysis and conclusions on this image data, we must verify if the image material being studied is likely to be in the true camera original, or could the image element be something introduced in the copying process by accident (or even deliberately added to falsify the image).

Verifying image data relies on a process of comparing multiple versions of the film, or scans of multiple copies of the film, because anything on the camera original is reasonably expected to convey to (be seen in) all copies and print images. Something seen in some copies, scans, or prints, but not seen in others, is the primary indicator of an anomaly introduced in the copy process (or deliberately altered in a copy). So it is the capability of comparing multiple versions of a frame image that provides the tool to distinguish the real image content from image anomalies. Similarly, the comparing of multiple frame versions allows us to make determinations about splicing, and separate a splice on a copy from a splice in the original.

Image Anomalies

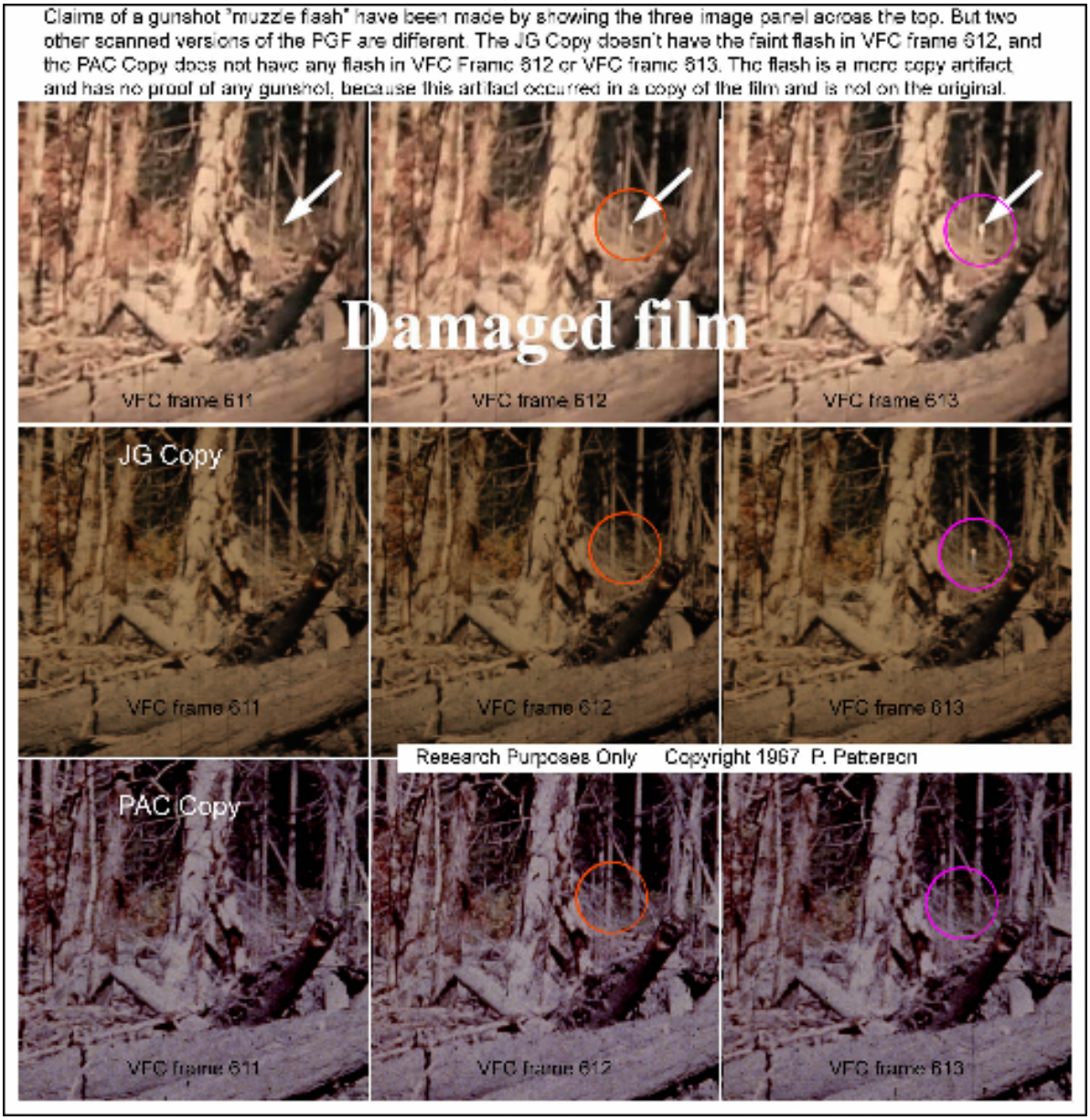
Image anomalies are odd shapes or patterns of light on the film (or single frame pictures taken from the film) which are studied. The two most well known and studied anomalies are the "hand" and the "muzzle flash".

"The Hand" refers to an odd shape on the Cibachrome print of frame 352 (which is actually frame 354 by the Verified Frame Count), shown below in the chart.



No scanned film copy has the hand shape in it, and neither does the transparency taken from the original film, and held by Mrs. Patterson today. Only the Cibachrome version of this frame has the hand shape in it. There is lively debate as to the cause of this anomaly, but general consensus that it is a false image anomaly and should simply be discounted and not used for any analysis.

The "Muzzle Flash" is a light flare emerging slightly in frame VFC 612, and then becoming very intense in frame VFC 613. The interpretation by some researchers is that this represents a gun or rifle "muzzle flash" of the weapon being discharged, and is popular in conjunction with a claim that people were shooting at the film subject when the film was being taken.



Examination of these frames in three copies of the film tells a different story. The "flash" is indeed weak in one frame, strong in the next, on one copy of the PGF. But on the John Green copy I scanned, the weak flash of frame 612 does not show, while the strong flash at frame 613 does. And on the Patterson Archive Copy I scanned, there is no flash at all on either frame 612 or 613.

The chart above illustrates the flare, and the discrepancy among the various film versions.

Considering that the PAC copy is by far the best of the three, and has no indications at all for such a flash, is one very strong indicator that the flash is not on the camera original, and thus was not occurring the day the film was taken. The flash being present only on some copies is the indicator of a light anomaly introduced in the copy process, possibly from a small dust particle on the film copy source, reacting to the projection or printer light, and causing a small flare, which is printed into a copy version.

Splicing Analysis

The issue of splicing is discussed briefly here, merely to illustrate how we compare copys to see if splicing can be attributed to a copy or the original. A more lengthy study and description of splicing and editing, as normal film processes, and more detail on how this factors into the PGF discussion, can be found at 3.5.5.1 in the 3.5 Backstory Section.

Here, I simply intend to show how two copies are compared, when a splice is found on one copy. In the illustrative instance shown below, another researcher sent me a film frame capture from one version of the film, and it clearly had a splice in it. The question was, is this splice simply on this particular copy, or could it be on the camera original. So first I located the frame in my inventory, to positively identify it. It is frame VFC 490.

The second step was to compare it to the two copy scans I have of that frame, the Green scan, and the PAC (Patterson Archive Copy). Neither one had the splice line it it.

If a splice was made to the camera original, before the original was copied, that splice would show in all copied versions of the film, and thus would be seen on other copies. When a splice is seen only in one copy version, and clearly not in other copy versions, we can be confident the original was not spliced at that point when the original copies were made.

Having examined every frame of two full scans of the film, I can attest to the fact that there is no evidence of splicing in the various copied version which would support any claim the camera original was spliced. And I continue to offer a frame identification service to any researcher who wants to know the frame number of any specific frame of the film, and wants to know if any splice found on a copy is also seen in other copies.

Continued Discussion

This discussion of the Physical Film, and the reference material, is in two additional PDF documents, #2 and #3

For more information, in case you may have received this PDF file from another person, you can find the source material at:

www.themunnsreport.com (The Munns Report . Com)

and more information about my career and background either on that website or:

www.billmunnscreaturegallery.com (My Creature Gallery website about my work in makeup, special effects, museum exhibit models, and wildlife art).

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